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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,913	03/26/2007	Kentarou Tamaki	295734US0PCT	4470

22850 7590 11/08/2007

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EXAMINER	
SMITH, CHAD	
ART UNIT	**PAPER NUMBER**
2874	

NOTIFICATION DATE	DELIVERY MODE
11/08/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,913	TAMAKI ET AL.	
	Examiner	Art Unit	
	Chad H. Smith	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/5/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: items 11 and 12 of figure 2c are not presented in the specification. Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (JP PG Pub. # 01-316710) in view of Tamaki et al. (PG Pub. # 2007/0014518).

'710 teaches a method for manufacturing an optical waveguide chip having an optical waveguide (3 and 3b in figure 2) and an optical fiber guide portion for positioning an optical fiber to be connected with the optical waveguide (2), which method comprises: (A) a step for forming an optical waveguide using a radiation-sensitive resin; and (B) a step for forming an optical fiber guide portion using the same or a different radiation-sensitive resin as/from the material of the optical waveguide (abstract). '710 is silent to the radiation-sensitive resin being made of a polysiloxane composition. '518 teaches using polysiloxane composition for alignment at high precision of an optical fiber with the optical waveguide chip for single mode operation (par. 0016). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of '710's optical waveguide device with '518's teaching of using a radiation-sensitive polysiloxane composition so as to be able to achieve alignment at high precision of an optical fiber with the optical waveguide chip for single mode operation.

Regarding claim 5, '710 teaches which comprises (C) a step for fixing a cover member on the upper surface of the optical waveguide formed in step (A) (fig. 2 item 3a).

Regarding claim 6, '518 teaches wherein the radiation-sensitive polysiloxane composition comprises components (a) and (b), and has a silanol (Si-OH) group content of from

10 to 50 percent based on the total bonds on Si: (a) at least one type of compound selected from the group consisting of hydrolysates of hydrolyzable silane compounds represented by formula (1) and condensation products of said hydrolysates,

$$(R^1)_p(R^2)_q \text{ Si } (X)_{4-p-q} \quad (1)$$

wherein R1 is a non-hydrolyzable organic group having 1 to 12 carbon atoms and at least one fluorine atoms; R2 is a non-hydrolyzable organic group having 1 to 12 carbon atoms and no fluorine atoms; X is a hydrolyzable group; p is 1 or 2; and q is 0 or 1; and (b) a photo-acid generator (par. 0037 – 0043). Furthermore, '518 discloses the claimed invention except for wherein the radiation-sensitive polysiloxane composition has a silanol (Si-OH) group content of from 10 to 50 percent based on the total bonds on Si. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the polysiloxane composition with a silanol group content of from 10 to 50 percent based on the desired refractive index for the optical waveguide, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 7, '518 teaches wherein the radiation-sensitive polysiloxane composition comprises components (a) and (b), and has a silanol (Si-OH) group content of from 10 to 50 percent based on the total bonds on Si: (a) at least one type of compound selected from the group consisting of hydrolysates of hydrolyzable silane compounds represented by formula (1) and condensation products of said hydrolysates,

$$(R^1)_p(R^2)_q \text{ Si } (X)_{4-p-q} \quad (1)$$

wherein R1 is a non-hydrolyzable organic group having 1 to 12 carbon atoms and at least one fluorine atoms; R2 is a non-hydrolyzable organic group having 1 to 12 carbon atoms and no fluorine atoms; X is a hydrolyzable group; p is 1 or 2; and q is 0 or 1; and (b) a photo-acid generator (par. 0037 – 0043). Furthermore, '518 discloses the claimed invention except for wherein the radiation-sensitive polysiloxane composition has a silanol (Si-OH) group content of from 10 to 50 percent based on the total bonds on Si. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the polysiloxane composition with a silanol group content of from 10 to 50 percent based on the desired refractive index for the optical waveguide, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 8, '710 teaches wherein the optical fiber guide portion comprises a pair of molded products which are formed to have a suitable distance from the optical waveguide and which are apart from each other (fig. 2, item 2).

Regarding claim 9, '710 teaches wherein the optical fiber guide portion comprises a pair of molded products which are formed to have a suitable distance from the optical waveguide and which are apart from each other (fig. 2, item 2).

Regarding claim 10, '710 teaches wherein the optical fiber guide portion comprises a pair of molded products which are formed to have a suitable distance from the optical waveguide and which are apart from each other (fig. 1, item 2).

Regarding claim 11, '710 teaches wherein the optical fiber guide portion comprises a pair of molded products which are formed to have a suitable distance from the optical waveguide and which are apart from each other (fig. 1, item 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad H. Smith whose telephone number is (571) 270-1294. The examiner can normally be reached on Monday-Thursday 7:30a.m. - 5:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-270-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chad H. Smith/
CHS

/Sung Pak/
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Primary Examiner
AU 2874